

### **REMARKS**

Claims 1, 3-5, 8-11, 13, and 16-20 are currently pending in the application. Claims 5, 10 and 13 are amended. The specification is also amended. No new matter is presented. In view of the above amendments and the followings remarks, Applicant requests the reconsideration of claims 1, 3-5, 8-11, 13, and 16-20.

The drawings are objected to for failing to show every feature of the invention specified in the claims. Specifically, the Examiner indicates that the feature of a diaphragms, prisms and polarizers as recited in claim 4 must be shown in the drawings or cancelled from the claims. Claim 4 is cancelled. Accordingly, Applicant requests the withdrawal of the objection to the drawings.

The specification is also objected to for incorporating essential material in the specification by reference to a foreign application or patent. The Examiner states that the incorporation of an adaptive mirror disclosed in the foreign application DE 26 31 551 for the purpose of support for the structure of the mirror system recited in the present claim 9 is not acceptable. The specification is amended to incorporate the material provided in the referenced application DE 26 31 551. A declaration stating that the amended material consists of the same material incorporated by reference in the referencing application is also submitted. Accordingly, Applicant requests the withdrawal of the objection to the specification.

Claims 5 and 10 were objected to for containing informalities. Claims 5 and 10 are amended to more clearly recite the claimed invention. Therefore, Applicant requests the withdrawal of the objection to claims 5 and 10.

Claims 1, 3-5, 8-11, 13, and 16-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicant respectfully disagrees.

The Examiner indicated that the features of two objective lenses between which a light transmitting specimen is arranged, a mirror followed by one of the objectives wherein the mirror is placed in a back focal plane (pupil plane) of the objective, a detector for receiving fluorescent radiation wherein a transmitted excitation light and fluorescent radiation

reflected by the mirror are not disclosed in the specification. The Examiner also states that the feature of the fluorescent radiation from the mirror and the fluorescent radiation from the specimen are re-imaged on the detector without the reflected excitation light.

Figure 2 illustrates an objective 21, a reflecting device 22, and mirror 23. Thus, as shown in Figure 2, the mirror 23 is placed in the back focal plane (pupil plane) of objective 21. Support for this claim language can be found on page 7, paragraph 0032. The Examiner indicates that the pupil plane is different from the back focal plane. Applicant respectfully disagrees.

The claimed invention provides two objectives thereby creating a pupil plane with is the back focal place of objective 21. In a single objective setup, the back focal plane is different than the pupil plane. Therefore, providing two objectives 20, 21, and a mirror 23 provides a back focal plane that is the pupil plane of objective 21. As a result, the claimed invention allows the detection of the fluorescent radiation that is not detected by the first microscope objective to be detected by means of the second objective in the reflective device and is reflected back again into the focus of the microscope objective. This fluorescent radiation is collected in the second objective and is an additional basis for detection. (See Page 8, paragraph 0039). In view of the above remarks and the support provided in the specification, Applicant requests the withdrawal of the rejection of claims 1, 3-5, 8-11, 13, and 16-20.

Claims 1, 3-5, 8-11, 13, and 16-20 were rejected under 35 U.S.C. 112, second paragraph. The Examiner states that it is not understood from the claim language as recited in claim 1, about the positioning of the mirror with respect to the objective.

Claims 1, 19, and 20 recite in part, that at least one of said two objectives being followed by a mirror for reflecting light transmitted through the specimen back into itself exactly wherein the mirror is placed in a back focal plane (pupil plane) of the at least one objective. As illustrated in Figure 2, first and second objectives 20 and 21 are illustrated. A mirror is provided in the back focal plane of the objective 21. It should be noted that the back focal plane of the objective is the same as the pupil plane. As mentioned above, since there are two objectives, the back focal plane is the same as the pupil plane. Accordingly,

Applicant submits that claims 1, 19, and 20 clearly recite the present invention. Therefore, Applicant requests the withdrawal of the rejection of claims 1 under 35 U.S.C. 112.

In regard to claim 4, the Examiner indicates that the feature of other "subassemblies for optical contrasting" is indefinite. Claim 4 is cancelled. Therefore the rejection of claim 4 is moot.

The Examiner also takes the position that claims 13, 16, and 18 is indefinite because the feature of "the observation beam path" lacks proper antecedent basis. Claim 13 is amended to clearly recite the claimed invention.

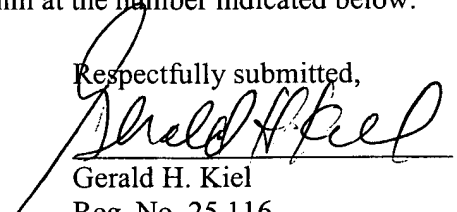
It should be noted that Figure 2 illustrates a detector 17 which detects the fluorescent radiation. Accordingly, the observation beam back is provided on the reflected image transmitted to the detector, as illustrated in Figure 2. In addition, support for claims 13, 16, and 18 can be found on Page 10, paragraph 46, "where the electrodes and/or the piezoelectric drives with which the deformable mirror surfaces are coupled can communicate with a detection device via an evaluating unit for a beam component which is coupled out of the observation beam path". Thus, in view of the above remarks and amendments, Applicant requests the withdrawal of the rejection of claims 13, 16, and 18.

Claims 3, 5, 8-11, 13, and 16-18 are dependent upon claim 1, therefore , it is submitted that for at least the reasons mentioned above, these claims likewise recite patentable subject matter. Accordingly, Applicant requests the withdrawal of the rejection of claims 3, 5, 8-11, 13, and 16-18 under 35 U.S.C. 112.

Based upon the above amendments and remarks, Applicant respectfully requests reconsideration of this application and its earlier allowance. Should the Examiner feel that a telephone conference with Applicant's attorney would expedite the prosecution of this application, the Examiner is urged to contact him at the number indicated below.

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Respectfully submitted,

  
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